

ABSTRACT

A semiconductor device of a double diffused MOS structure employing a silicon carbide semiconductor substrate. The semiconductor device comprises a silicon carbide semiconductor epitaxial layer provided on a surface of the silicon carbide semiconductor substrate and having a first conductivity which is the same conductivity as the silicon carbide semiconductor substrate, and an impurity region formed by doping a surface portion of the silicon carbide semiconductor epitaxial layer with an impurity of a second conductivity, the impurity region having a profile such that a near surface thereof has a relatively low second-conductivity impurity concentration and a deep portion thereof has a relatively high second-conductivity impurity concentration.